

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re U.S. Patent Application

Applicant(s): Takeda et al.

Divisional of
Serial No.: 09/097,027

Filed: June 12, 1998

For: VERTICALLY-ALIGNED
(VA) LIQUID CRYSTAL
DISPLAY DEVICE (as amended)

Art Unit: 2871

Examiner: Nguyen, D.



I hereby certify that this paper is being deposited with the United States Postal Service as EXPRESS MAIL in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this date.

November 21, 2003

Date

Josh C. Snider
Express Mail No. EL 846178015 USINFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This IDS is submitted under 37 C.F.R. §1.97(b) within either of the following time periods, whichever occurs last:

- (a) within three months of either the filing date of the national application or the date of entry into the national stage; or
- (b) before the mailing date of first office action on the merits (i.e., not including actions such as restriction requirements).

Applicant(s) submit herewith Form PTO-1449 (Information Disclosure Citation) together with copies of patents, publications or other information of which applicant(s) are aware, which applicant(s) believe may be material to the examination of this application and for which there may be a duty to disclose in accordance with 37 C.F.R. §1.56. Applicant(s) respectfully submit that the citation of any reference on Form PTO-1449 does not constitute an admission that the reference qualifies as prior art.

It is requested that the information disclosed on the enclosed Form PTO-1449 be made of record in this application.

The Commissioner is hereby authorized to charge any additional fees which may be required to this application under 37 C.F.R. §§1.16-1.17, or to credit any overpayment, to Deposit Account No. 07-2069. A duplicate copy of this sheet is enclosed.

November 21, 2003

300 South Wacker Drive – Suite 2500
Chicago, Illinois 60606
Telephone: (312) 360-0080
Facsimile: (312) 360-9315
Customer Number 24978
F:\DATA\WP60\2803\68147\IDS Time Period 1 & 2.DOC

Respectfully submitted,

GREER, BURNS & CRAN, LTD.

By: Josh C. Snider

Josh C. Snider

Registration No. 47,954

Form PTO-1449 U.S. Department of Commerce (Rev. 8-88) Patent and Trademark Office		Attorney Docket No.: 2803.68147	Divisional of Serial No.: 09/097,027
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)		Applicant: Takeda et al.	
		Filing Date: November 21, 2003 Group: 2871	

NOV 21 2003

U.S. PATENT DOCUMENTS

Examiner Initial*	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
	5,136,407	Aug. 4, 1992	Clerc			
	5,298,199	Mar. 29, 1994	Hirose et al.			
	5,434,690	Jul. 18, 1995	Hisatake et al.			
	5,583,679	Dec. 10, 1996	Ito et al.			
	5,608,556	Mar. 4, 1997	Koma			
	5,953,093	Sep. 14, 1999	Hirata et al.			
	5,986,732	Nov. 16, 1999	Ozeki et al.			
	5,995,190	Nov. 30, 1999	Nagae et al.			
	6,191,836	Feb. 20, 2001	Woo et al.			

FOREIGN PATENT DOCUMENTS

	Document Number	Date	Country	Class	Subclass	Translation	
						Yes	No
	EP 445,777	Sept. 11, 1991	Europe			Yes	
	EP 636,917	Feb. 1, 1995	Europe			Yes	
	EP 676,661	Oct. 11, 1995	Europe			Yes	
	JP 2,507,122	April 2, 1996	Japan				No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	Okamoto; MVA Liquid Crystal Technology - Latest Version of VA Liquid Crystals; <i>Nikkei Flat Panel Display</i> ; Part 3-6; Pages 104-107.
	Ohmuro et al., Development of Super-High-Image-Quality Vertical-Alignment-Mode LCD, DIS 97 DIGEST; pp. 845-848.
	Ong, H.L., "Multi-Domain Homeotropic LCDs with Symmetrical Angular Optical Performance," <i>SID International Symposium Digest of Papers</i> , vol. 23, May 17, 1992, pp. 405-408.

Examiner	Date Considered
----------	-----------------

*Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 U.S. Department of Commerce (Rev. 8-88) Patent and Trademark Office INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)			Attorney Docket No.: 2803.68147		Serial No.: 09/907,027	
			Applicant: Takeda et al.			
			Filing Date: November 21, 2003		Group: 2871	

U.S. PATENT DOCUMENTS

Examiner Initial*	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
	5,309,624	May 10, 1994	Nishikawa			
	5,757,451	May 26, 1998	Miyazaki et al.			
	5,907,380	May 25, 1999	Lien			
	6,147,729	Nov. 14, 2000	Kurauchi et al.			
	5,745,206	Apr. 1998	Koike et al.			

FOREIGN PATENT DOCUMENTS

	Document Number	Date	Country	Class	Subclass	Translation	
						Yes	No
	JP 10-048634	Feb. 20, 1998	Japan			Abs.	
	JP 1-189629	July 28, 1989	Japan			Abs.	
	JP 1-196020	Aug. 7, 1989	Japan			Abs.	
	JP 2-151830	June 11, 1990	Japan			Desc. Only	

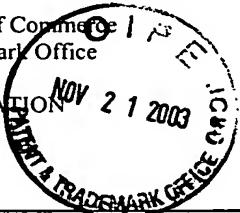
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	Soref et al.; "Electrically Controlled Birefringence of Thin Nematic Films"; <i>Journal of Applied Physics</i> , vol. 43, no. 5, May 1972, pp.2029 - 2037	

Examiner	Date Considered
----------	-----------------

*Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 U.S. Department of Commerce (Rev. 8-88) Patent and Trademark Office		Attorney Docket No.: 2803.68147	Divisional of Serial No.: 09/097,027
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)		Applicant: Takeda et al.	
		Filing Date: November 21, 2003 Group: 2871	



U.S. PATENT DOCUMENTS

Examiner Initial*	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
	4,385,806	May 31, 1983	Fergason			
	4,701,028	Oct. 20, 1987	Clerc			
	4,786,147	Nov. 22, 1988	Clerc			
	4,889,412	Dec. 26, 1989	Clerc			
	5,309,264	May 3, 1994	Lien			
	5,473,455	Dec. 5, 1995	Koike			
	5,673,092	Sept. 30, 1997	Horie			
	5,917,572	June 29, 1999	Karauchi			
	6,061,117	May 9, 2000	Horne			

FOREIGN PATENT DOCUMENTS

	Document Number	Date	Country	Class	Subclass	Translation	
						Yes	No
	JP 2-190825	July 26, 1990	Japan			Desc. Only	
	JP 3-043701	Feb. 25, 1991	Japan			Abs.	
	JP 3-209220	Sept. 12, 1991	Japan			Desc. Only	
	JP 3-261914	Nov. 21, 1991	Japan			Abs.	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

Examiner	Date Considered
----------	-----------------

*Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 (Rev. 8-88)	U.S. Department of Commerce Patent and Trademark Office	Attorney Docket No.: 2803.68147	Divisional of Serial No.: 09/097,027
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)		Applicant: Takeda et al.	
		Filing Date: November 21, 2003	Group: 2871

U.S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

	Document Number	Date	Country	Class	Subclass	Translation	
						Yes	No
	JP 5-173142	July 13, 1993	Japan				No
	JP 6-258649	Sept. 16, 1994	Japan			Partial	
	JP 6-301036	Oct. 28, 1994	Japan			Abs.	
	JP 7-013164	Jan. 17, 1995	Japan			Abs.	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

Examiner	Date Considered
*Examiner:	Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 (Rev. 8-88)	U.S. Department of Commerce Patent and Trademark Office	Attorney Docket No.: 2803.68147	Divisional of Serial No.: 09/097,027
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)		NOV 21 2003 JCM PATENT & TRADEMARK OFFICE	
		Applicant: Takeda et al.	
		Filing Date: November 21, 2003	Group: 2871

U.S. PATENT DOCUMENTS

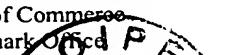
FOREIGN PATENT DOCUMENTS

	Document Number	Date	Country	Class	Subclass	Translation	
						Yes	No
	JP 7-028063	Jan. 31, 1995	Japan			Abs.	
	JP 7-043719	Feb. 14, 1995	Japan				No
	JP 7-104450	Nov. 13, 1995	Japan				No
	JP 7-199193	Aug. 4, 1995	Japan			Abs.	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

OTHER DOCUMENTS (including Author, Title, Date, Edition, Page, etc.)	

Examiner	Date Considered
*Examiner:	Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 (Rev. 8-88) U.S. Department of Commerce Patent and Trademark Office	Attorney Docket No.: 2803.68147	Divisional of Serial No.: 09/097,027
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)		
 NOV 21 2003 U.S. PATENT AND TRADEMARK OFFICE		
Applicant: Takeda et al.		
Filing Date: November 21, 2003		Group: 2871

U.S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

Examiner

Date Considered

*Examiner:

Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 U.S. Department of Commerce (Rev. 8-88) Patent and Trademark Office		Attorney Docket No.: 2803.68147		Divisional of Serial No.: 09/097,027			
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)		<p style="text-align: center;">O I P E</p> <p style="text-align: center;">NOV 21 2003</p> <p style="text-align: center;">U. S. PATENT & TRADEMARK OFFICE</p>					
		Applicant: Takeda et al.					
		Filing Date: November 21, 2003		Group: 2871			
U.S. PATENT DOCUMENTS							
Examiner Initial*	Document Number	Date	Name	Class	Subclass		
FOREIGN PATENT DOCUMENTS							
	Document Number	Date	Country	Class	Subclass	Translation	
	JP 9-120075	May 6, 1997	Japan			Yes	No
	WO 98/57222	Dec. 17, 1998	WIPO			Yes	
	GB 1,462,978	Jan. 26, 1977	Great Britain			Yes	
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
Examiner		Date Considered					
*Examiner:		Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.					